ABSTRACT

An amorphous oxide surface film for metallic implantable devices and method for production thereof, wherein the amorphous oxide film is characterized by a high concentration of oxygen, chromium and hydroxyl ions within the film so as to form a non-stoichiometric chromium oxide with significant negative charge; thereby, improving the corrosion resistance and biocompatibility of the metallic implantable device, and thus significantly reducing the degree of thrombogenicity and restenosis.